

REMARKS**Summary of the Office Action**

Claim 7 (and dependent claims 8-9) stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly not being enabled by the specification.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Hiiron (U.S. Patent No. 5,048,030) (hereinafter "Hiiron").

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anikitchev et al. (U.S. Patent Application Publication No. 20040252743) (hereinafter "Anikitchev").

Claims 5, 6 and 10, while objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form.

Rejections under 35 U.S.C. § 112, First Paragraph

Claim 7 (and dependent claims 8-9) stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly not being enabled by the specification. This rejection is respectfully traversed for at least the following reasons.

At pages 2-3 of the Office Action, the Examiner is correct in explaining that a particular embodiment is enabled in the specification. The embodiment that the Examiner is referring to in this regard, however, is already claimed, for example, in claim 5 of the instant application.

While Applicants agree that the features claimed in claim 5 of the instant application are fully enabled by the specification, Applicants also note that the features claimed in the rejected claim 7 are also fully enabled by the specification for at least the following reasons.

Applicants respectfully traverse the portion of this rejection in which the Examiner alleges that the specification “does not reasonably provide enablement for ‘a second optical combiner having one or more transmitting portions for receiving and transmitting the beams emitted from the third beam converter and one or more reflecting portions for receiving and reflecting the beams combined by the first optical combiner to combine the beams transmitted through the one or more transmitting portions and the beams reflected by the one or more reflecting portions.’”

Such an assertion is respectfully traversed because the specification provides clear enablement for the arrangements described in claim 7 (and dependent claims 8-9) as follows. For example, page 21, lines 15-25 of the instant application’s specification discloses an embodiment in which the beams emitted from the third light source 60 can be caused to be transmitted through the second optical combiner 80 and the combined beams 91 from the first optical combiner can be caused to be reflected by the second optical combiner 80. This portion of the specification goes on to direct that “[i]n this case, the transmitting portions of second optical combiner 80 receive the beams emitted from third beam converter 68. Also, the reflecting portions of second optical combiner 80 receive combined beam 91...”

Accordingly, Applicants respectfully submit that the “second optical combiner” features of claim 7 (and dependent claims 8-9) of the instant application are clearly disclosed at least at this portion of the specification of the instant application in a manner that Applicants respectfully submit are entirely sufficient to enable one having ordinary skill in the art to make and use the invention described in claim 7 (and dependent claims 8-9), despite the allegations in the Office Action’s rejection in this regard. In the event that the Examiner might maintain this rejection, the Examiner is respectfully requested to explain in the next Office Communication why the

Examiner believes that this disclosure at page 21, lines 15-25 would not enable one having ordinary skill in the art to make and use the invention described in claim 7 (and dependent claims 8-9) of the instant application.

As a result, Applicants respectfully submit that claim 7 (and dependent claims 8-9) fully comply with 35 U.S.C. § 112, first paragraph for at least the foregoing reasons. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, first paragraph is respectfully requested.

Rejections under 35 U.S.C. §§ 102(b) and 103(a)

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anikitchev et al. (U.S. Patent Application Publication No. 20040252743) (hereinafter “Anikitchev”). With regard to claims 1-4, Applicants respectfully submit that Anikitchev should not be considered as prior art in the present application under any subsection of 35 U.S.C. § 102 for at least the following reasons.

Acknowledgement of a Claim for Priority and of receipt of a certified copy of the instant application’s priority document (Japanese Patent Application No. 2002-230279, which was filed in Japan on August 7, 2002) was made by the Examiner at page 1, section 12 of the Office Action dated March 22, 2007. Pursuant to 37 C.F.R. § 1.55(a), Applicants submit concurrently herewith a verified translation of Japanese Patent Application No. 2002-230279. The effective U.S. filing date under 35 U.S.C. § 102(e) of Anikitchev is June 11, 2003, which is after the priority date to which this application is entitled.

Accordingly, Applicants respectfully submit that Anikitchev should not be considered as prior art in the present application under any subsection of 35 U.S.C. § 102. Withdrawal of the rejection under 35 U.S.C. § 103(a) is thus respectfully requested.

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Hiiro. This rejection is respectfully traversed for at least the following reasons.

Applicants respectfully submit that Hiiro discloses a semiconductor laser 10A and a semiconductor laser 10B. However, each of these is disclosed respectively in Hiiro as a separate, single semiconductor laser which is different from a semiconductor laser array with a plurality of active layers aligned in parallel in a specific direction, as described in detail in claim 1 of the instant application. Therefore, Applicants respectfully submit that Hiiro does not disclose the “semiconductor laser array” features of independent claim 1 of the instant application.

Also, Applicants respectfully submit that Hiiro discloses a polarized beam splitter 16 which transmits P-polarized light and reflects S-polarized light. Therefore, the polarized beam splitter 16 transmits or reflects an entire beam depending on the polarization state. Therefore, the polarized beam splitter 16 does not disclose providing a first optical combiner structure that includes a combination of both transmitting portion(s) and reflecting portion(s), as specifically described in independent claim 1 of the instant application. Accordingly, Applicants respectfully submit that Hiiro does not disclose the “one or more transmitting portions” and the “one or more reflecting portions” features of independent claim 1 of the instant application.

Even further, Applicants respectfully submit that Hiiro discloses a $\frac{1}{2}$ wavelength plate 14A and a $\frac{1}{2}$ wavelength plate 14B. However, Applicants note that each of these rotates a polarization plane. On the other hand, the beam converter described in independent claim 1 of the instant application is not configured to rotate a polarization plane. Instead, it rotates the entire beam collimated by the collimator lens by substantially 90° in a manner that differs from the Hiiro arrangement. Therefore, Applicants respectfully submit that Hiiro does not disclose the “beam converter” features of independent claim 1 of the instant application.

Applicants respectfully submit that, in embodiments of the disclosure of the instant application, as described in independent claim 1, for example, the beam converter receives the beams collimated by the collimator lens and rotates the transverse section of each beam by substantially 90°. Therefore, the spread of each beam within a plane perpendicular to the direction of alignment of the active layers is restrained by the collimation of the collimator lens. Applicants respectfully submit that rotating the transverse section of each beam by substantially 90° suppresses the spread of the beam in the direction of alignment of the active layers. Accordingly, adjacent beams become unlikely to cross each other. This enables close arrangement of the active layers, and therefore, higher optical density can be obtained.

Accordingly, Applicants respectfully assert that the rejection under 35 U.S.C. § 102(b) should be withdrawn because Hiirō does not teach each feature of independent claim 1 for at least the foregoing reasons. As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Furthermore, Applicants respectfully assert that dependent claims 2-9 are allowable at least because of their dependence from independent claim 1 and the reasons set forth above.

Applicants respectfully submit that, as described in dependent claim 3 of the instant application, the plurality of transmitting portions and the plurality of reflecting portions are both strip-like in form. The transmitting portions and the reflecting portions are extending in the z-direction described in Fig. 6, for example. Therefore, Applicants respectfully submit that even

though the beams emitted from the beam converters 18 and 28 diverge in the z-direction, the optical combiner 30 can sufficiently transmit or reflect the beam.

The Examiner is thanked for the indication that claims 5, 6 and 10, while objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form. Applicants respectfully submit that these claims are also allowable at least because of their dependence from independent claim 1, and the reasons set forth above. Accordingly, withdrawal of the objection to these claims is respectfully requested.

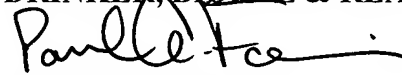
CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0573. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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